



PCT

## RAW SEQUENCE LISTING

DATE: 07/12/2005

PATENT APPLICATION: US/10/509,950

TIME: 10:21:28

Input Set : A:\US10509950 Sequence Listing.txt

Output Set: N:\CRF4\07122005\J509950.raw

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3 <110> APPLICANT: Evotec NeuroSciences GmbH
5 <120> TITLE OF INVENTION: cAMP-Regulated Phosphorprotein for Diagnostic and
6   Therapeutic Use in Neurodegenerative Diseases
8 <130> FILE REFERENCE: 020880ep
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/509,950
C--> 11 <141> CURRENT FILING DATE: 2004-10-04
13 <160> NUMBER OF SEQ ID NOS: 16
15 <170> SOFTWARE: PatentIn Ver. 2.1
17 <210> SEQ ID NO: 1
18 <211> LENGTH: 813
19 <212> TYPE: PRT
20 <213> ORGANISM: Homo sapiens
22 <400> SEQUENCE: 1
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24   1             5             10             15
26 Thr Glu Gln Glu Thr Ala Thr Pro Glu Asn Gly Ile Val Lys Ser Glu
27           20           25           30
29 Ser Leu Asp Glu Glu Glu Lys Leu Glu Leu Gln Arg Arg Leu Glu Ala
30       35       40       45
32 Gln Asn Gln Glu Arg Arg Lys Ser Lys Ser Gly Ala Gly Lys Gly Lys
33   50       55       60
35 Leu Thr Arg Ser Leu Ala Val Cys Glu Glu Ser Ala Arg Pro Gly
36 65       70       75       80
38 Gly Glu Ser Leu Gln Asp Gln Glu Ser Ile His Leu Gln Leu Ser Ser
39       85       90       95
41 Phe Ser Ser Leu Gln Glu Glu Asp Lys Ser Arg Lys Asp Asp Ser Glu
42       100      105      110
44 Arg Glu Lys Glu Lys Asp Lys Asn Lys Asp Lys Thr Ser Glu Lys Pro
45       115      120      125
47 Lys Ile Arg Met Leu Ser Lys Asp Cys Ser Gln Glu Tyr Thr Asp Ser
48       130      135      140
50 Thr Gly Ile Asp Leu His Glu Phe Leu Ile Asn Thr Leu Lys Asn Asn
51 145       150      155      160
53 Ser Arg Asp Arg Met Ile Leu Leu Lys Met Glu Gln Glu Ile Ile Asp
54       165      170      175
56 Phe Ile Ala Asp Asn Asn Asn His Tyr Lys Lys Phe Pro Gln Met Ser
57       180      185      190
59 Ser Tyr Gln Arg Met Leu Val His Arg Val Ala Ala Tyr Phe Gly Leu
60       195      200      205
62 Asp His Asn Val Asp Gln Thr Gly Lys Ser Val Ile Ile Asn Lys Thr
63       210      215      220
65 Ser Ser Thr Arg Ile Pro Glu Gln Arg Phe Cys Glu His Leu Lys Asp
66 225      230      235      240

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68 Glu Lys Gly Glu Glu Ser Gln Lys Arg Phe Ile Leu Lys Arg Asp Asn
69                245                250                255
71 Ser Ser Ile Asp Lys Glu Asp Asn Gln Ser Val Cys Ser Gln Glu Ser
72                260                265                270
74 Leu Phe Val Glu Asn Ser Arg Leu Leu Glu Asp Ser Asn Ile Cys Asn
75                275                280                285
77 Glu Thr Tyr Lys Lys Arg Gln Leu Phe Arg Gly Asn Arg Asp Gly Ser
78                290                295                300
80 Gly Arg Thr Ser Gly Ser Arg Gln Ser Ser Ser Glu Asn Glu Leu Lys
81 305                310                315                320
83 Trp Ser Asp His Gln Arg Ala Trp Ser Ser Thr Asp Ser Asp Ser Ser
84                325                330                335
86 Asn Arg Asn Leu Lys Pro Ala Met Thr Lys Thr Ala Ser Phe Gly Gly
87                340                345                350
89 Ile Thr Val Leu Thr Arg Gly Asp Ser Thr Ser Ser Thr Arg Ser Thr
90                355                360                365
92 Gly Lys Leu Ser Lys Ala Gly Ser Glu Ser Ser Ser Ala Gly Ser
93                370                375                380
95 Ser Gly Ser Leu Ser Arg Thr His Pro Pro Leu Gln Ser Thr Pro Leu
96 385                390                395                400
98 Val Ser Gly Val Ala Ala Gly Ser Pro Gly Cys Val Pro Tyr Pro Glu
99                405                410                415
101 Asn Gly Ile Gly Gly Gln Val Ala Pro Ser Ser Thr Ser Tyr Ile Leu
102                420                425                430
104 Leu Pro Leu Glu Ala Ala Thr Gly Ile Pro Pro Gly Ser Ile Leu Leu
105                435                440                445
107 Asn Pro His Thr Gly Gln Pro Phe Val Asn Pro Asp Gly Thr Pro Ala
108                450                455                460
110 Ile Tyr Asn Pro Pro Thr Ser Gln Gln Pro Leu Arg Ser Ala Met Val
111 465                470                475                480
113 Gly Gln Ser Gln Gln Gln Pro Pro Gln Gln Gln Pro Ser Pro Gln Pro
114                485                490                495
116 Gln Gln Gln Val Gln Pro Pro Gln Pro Gln Met Ala Gly Pro Leu Val
117                500                505                510
119 Thr Gln Ser Val Gln Gly Leu Gln Ala Ser Ser Gln Ser Val Gln Tyr
120                515                520                525
122 Pro Ala Val Ser Phe Pro Pro Gln His Leu Leu Pro Val Ser Pro Thr
123                530                535                540
125 Gln His Phe Pro Met Arg Asp Asp Val Ala Thr Gln Phe Gly Gln Met
126 545                550                555                560
128 Thr Leu Ser Arg Gln Ser Ser Gly Glu Thr Pro Glu Pro Pro Ser Gly
129                565                570                575
131 Pro Val Tyr Pro Ser Ser Leu Met Pro Gln Pro Ala Gln Gln Pro Ser
132                580                585                590
134 Tyr Val Ile Ala Ser Thr Gly Gln Gln Leu Pro Thr Gly Gly Phe Ser
135                595                600                605
137 Gly Ser Gly Pro Pro Ile Ser Gln Gln Val Leu Gln Pro Pro Pro Ser
138                610                615                620
140 Pro Gln Gly Phe Val Gln Gln Pro Pro Pro Ala Gln Met Pro Val Tyr

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141 625          630          635          640
143 Tyr Tyr Pro Ser Gly Gln Tyr Pro Thr Ser Thr Thr Gln Gln Tyr Arg
144          645          650          655
146 Pro Met Ala Pro Val Gln Tyr Asn Ala Gln Arg Ser Gln Gln Met Pro
147          660          665          670
149 Gln Ala Ala Gln Gln Ala Gly Tyr Gln Pro Val Leu Ser Gly Gln Gln
150          675          680          685
152 Gly Phe Gln Gly Leu Ile Gly Val Gln Gln Pro Pro Gln Ser Gln Asn
153          690          695          700
155 Val Ile Asn Asn Gln Gln Gly Thr Pro Val Gln Ser Val Met Val Ser
156 705          710          715          720
158 Tyr Pro Thr Met Ser Ser Tyr Gln Val Pro Met Thr Gln Gly Ser Gln
159          725          730          735
161 Gly Leu Pro Gln Gln Ser Tyr Gln Gln Pro Ile Met Leu Pro Asn Gln
162          740          745          750
164 Ala Gly Gln Gly Ser Leu Pro Ala Thr Gly Met Pro Val Tyr Cys Asn
165          755          760          765
167 Val Thr Pro Pro Thr Pro Gln Asn Asn Leu Arg Leu Ile Gly Pro His
168          770          775          780
170 Cys Pro Ser Ser Thr Val Pro Val Met Ser Ala Ser Cys Arg Thr Asn
171 785          790          795          800
173 Cys Ala Ser Met Ser Asn Ala Gly Trp Gln Val Lys Phe
174          805          810
178 <210> SEQ ID NO: 2
179 <211> LENGTH: 2442
180 <212> TYPE: DNA
181 <213> ORGANISM: Homo sapiens
183 <400> SEQUENCE: 2
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185 acggccactc cagagaacgg cattgttaaa tcagaaaagtc tggatgaaga ggagaaactg 120
186 gaactgcaga ggcggctgga ggctcagaat caagaaaagaa gaaaatccaa gtcaggagca 180
187 ggaaaaggta aactgactcg cagyccttgct gtctgtgagg aatcttctgc cagaccagga 240
188 ggtgaaagtc ttcaggatca ggaatcaatt catttacagc tttccagttt ttccagcctg 300
189 caagaggagc ataaatctag gaaagatgac tctgaaagag aaaaagaaaa ggataaaaaac 360
190 aaagataaaaa cctctgaaaa acccaagatc agaatgttat caaaagattg cagccaagaa 420
191 tacacggatt ctacaggcat agacttacac gagtttctga ttaacacatt aaagaataat 480
192 tccaggggaca ggatgatact tttgaaaatg gagcaggaaa ttattgattt cattgctgac 540
193 aacaataatc attataaaaa gttccctcag atgtcatcgt atcagaggat gcttgtccat 600
194 cgagtggcag cttatttttg attggatcac aatgtggatc aaacaggaaa atctgttatc 660
195 atcaacaaga ccagcagcac cagaatacca gagcaaaggt tttgtgaaca tttaaaagat 720
196 gaaaaagggtg aagaatccca gaagcggttt atcttgaagc gagataactc tagtattgat 780
197 aaagaagaca atcagtcagt ttgctcccag gaaagccttt ttgtggaaaa cagtaggctc 840
198 ttggaagaca gtaacatatg caatgagacc tataagaaaa gacagctctt tcggggcaac 900
199 agagatggct caggggagaac atctgggagt cgacagagca gctcagaaaa tgaactcaag 960
200 tggctctgacc accaaaagggc ctggagcagc acagactccg acagttccaa ccgcaatcta 1020
201 aagcccgcga tgaccaagac ggcgagtttt gggggcatca cgggtctgac caggggtgac 1080
202 agcacttcca gtactaggag taccgggaag ctgtccaaaag caggttccga gtcttcagc 1140
203 agtgcaggct cctcaggatc gctgtcccgc acccatccac ctctccagag cacacccta 1200
204 gtctcagggtg tggcagctgg ctctccaggc tgtgtgcctt atccagagaa tggaataggg 1260

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205 ggccaggttg ctcccagcag caccagctac atcctccttc cacttgaagc tgcaacaggc 1320
206 atcccgcttg gaagcatcct tcttaatcca cacacaggcc agccctttgt gaatcccgat 1380
207 ggaactcctg caatatacaa cccacccacc agtcagcagc ccctgcgaag cgccatggtg 1440
208 gggcagtcct aacagcagcc gccacagcag cagccctccc cgagcccca acagcaggtc 1500
209 cagccaccgc agccacagat ggcaggccct ctggtcactc agtctgtcca ggggctgcag 1560
210 gcttcctccc agtcagtgc atatccggca gtctcttttc ctcccagca cctcctacct 1620
211 gtgtctccaa cgcagcactt tcccagaga gatgatgtgg caacacagtt tggccagatg 1680
212 accctgagcc ggcagtcctc gggggagact cctgaacccc catcagggtc tgtctaccca 1740
213 tcctccctta tgccacagcc ggcccagcag cccagctatg taatcgctc tacaggccag 1800
214 cagcttccta caggaggatt ctcaggctct ggccctccca tctcccagca ggtcctccag 1860
215 cccctccct caccacaggg atcgtgcaa cagcctccgc ctgcacagat gcctgtatat 1920
216 tattacccat ctggtcagta ccctacctca accacgcaac agtaccggcc catggccccg 1980
217 gttcagtaca acgctcagag gagtcaacag atgccacagg cagcacagca agcaggttac 2040
218 cagccagtct tgtctggtca acagggattc caaggcctaa taggagtgc gcagccacct 2100
219 cagagtcaga acgtgataaa taaccaacaa ggaactccgg tgcaaaagct gatggtttcc 2160
220 tacccaacaa tgtcttctta tcaggtgcca atgaccagg gttctcaagg actgccccag 2220
221 cagtcatacc aacagccaat catgctacct aaccaggcag gtcaagggtc actcccagcc 2280
222 actggaatgc ctgtttactg taatgtcaca ccgcccaccc ctcaagaacaa ccttaggctg 2340
223 attggccac actgcccctc cagcactgtc ccagtgatgt cagctagctg cagaacaaac 2400
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228 <211> LENGTH: 3212
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230 <213> ORGANISM: Homo sapiens
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235 cttgtgtgga ttttcctggc gtagaacgac agaagccgct agtaagtcgc caagacctac 180
236 agcaggaatt ctgcacaaaa gggcataaaa tcttggtatt ttaatttgca tctgggagaa 240
237 tgtctgagca aggagacctg aatcaggcaa tagcagagga aggagggact gagcaggaga 300
238 cggccactcc agagaacggc attgttaa atcagaaagtct ggatgaagag gagaaactgg 360
239 aactgcagag gcggctggag gctcagaatc aagaaagaag aaaatccaag tcaggagcag 420
240 gaaaaggtaa actgactcgc agycttgctg tctgtgagga atcttctgcc agaccaggag 480
241 gtgaaagtct tcaggatcag gaatcaattc atttacagct ttccagtttt tccagcctgc 540
242 aagaggagga taaatctagg aaagatgact ctgaaagaga aaaagaaaag gataaaaaaca 600
243 aagataaaac ctctgaaaaa cccaagatca gaatgttatc aaaagattgc agccaagaat 660
244 acacggattc tacaggcata gacttacacg agtttctgat taacacatta aagaataatt 720
245 ccaggggacag gatgatactt ttgaaaatgg agcaggaaat tattgatttc attgctgaca 780
246 acaataatca ttataaaaag ttccctcaga tgtcatcgta tcagaggatg cttgtccatc 840
247 gagtggcagc ttattttgga ttggatcaca atgtggatca aacaggaaaa tctgttatca 900
248 tcaacaagac cagcagcacc agaataccag agcaaagggt ttgtgaacat ttaaaagatg 960
249 aaaaagggtga agaatcccag aagcggttta tcttgaagcg agataactct agtattgata 1020
250 aagaagacaa tcagtcagtt tgctcccagg aaagcctttt tgtggaaaac agtaggctct 1080
251 tggaagacag taacatatgc aatgagacct ataagaaaag acagctcttt cggggcaaca 1140
252 gagatggctc agggagaaca tctgggagtc gacagagcag ctcaaaaaat gaactcaagt 1200
253 ggtctgacca ccaaagggcc tggagcagca cagactccga cagttccaac cgcaatctaa 1260
254 agcccgccat gaccaagacg gcgagttttg ggggcatcac ggtgctgacc aggggtgaca 1320
255 gcacttcag tactaggagt accgggaagc tgtccaaagc aggttccgag tcttcagca 1380
256 gtgcaggctc ctcaggatcg ctgtcccgc cccatccacc tctccagagc acaccctag 1440

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Output Set : N:\CRF4\07122005\J509950.raw

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257 tctcaggtgt ggcagctggc tctccaggct gtgtgcctta tccagagaat ggaatagggg 1500
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259 tcccgcctgg aagcatcctt cttaatccac acacaggcca gccctttgtg aatcccgatg 1620
260 gaactcctgc aatatacaac ccacccacca gtcagcagcc cctgcgaagc gccatggtgg 1680
261 ggcagtccca acagcagccg ccacagcagc agccctcccc gcagcccaa cagcaggtcc 1740
262 agccaccgca gccacagatg gcaggccctc tggctactca gtctgtccag gggctgcagg 1800
263 cttcctccca gtcagtgcaa tatccggcag tctcttttcc tcccagcac ctctacctg 1860
264 tgtctccaac gcagcacttt cccatgagag atgatgtggc aacacagttt ggccagatga 1920
265 ccctgagccg gcagtcctcg ggggagactc ctgaaccccc atcaggtcct gtctacccat 1980
266 cctcccttat gccacagccg gcccagcagc ccagctatgt aatcgccctc acaggccagc 2040
267 agcttcctac aggaggattc tcaggctctg gccctcccat ctcccagcag gtccctccagc 2100
268 cccctccctc accacaggga ttcgtgcaac agcctccgcc tgcacagatg cctgtatat 2160
269 attacccatc tggtcagtac cctacctcaa ccacgcaaca gtaccggccc atggccccgg 2220
270 ttcagtacaa cgctcagagg agtcaacaga tgccacaggc agcacagcaa gcaggttacc 2280
271 agccagtctt gtctgggtcaa cagggtattc aaggccta atagggtgcag cagccacctc 2340
272 agagtcagaa cgtgataaat aaccaacaag gaactccggt gcaaagcgtg atgggttcct 2400
273 acccaacaat gtcttcttat cagggtgcaa tgacccaggg ttctcaagga ctgccccagc 2460
274 agtcatacca acagccaatc atgctaccta accaggcagg tcaagggtca ctcccagcca 2520
275 ctggaatgcc tgtttactgt aatgtcacac cgcccacccc tcagaacaac cttaggctga 2580
276 ttggcccaca ctgcccctcc agcactgtcc cagtgtatgtc agctagctgc agaacaaact 2640
277 gtgcaagtat gagcaatgct gggtggcagg tcaaatctctg agagctctgg ctgtggtaca 2700
278 tttcttcaga tattttctcat ggctttgat ggaagaggaa caagggtgga aaactggctg 2760
279 aggacttaag tatttactca aactcaa atgtgtctgt ggtattctgt aaaaagtaaa 2820
280 caaagactaa tatacacgtt agctggttaa tgggtgcata tctgtcatg tctgctagg 2880
281 atgcctttat agcttagcta gtgacatgaa ttcataagg taagattctc tctaccact 2940
282 gaataccact gtgtagatta taatatccct aatttggatt agttttgtac tttgtgtga 3000
283 gtttgtgatg ctaaaagtat ttaaaaatta tatactaaat cacattgtac caaagctgta 3060
284 atggaaaagc aaagaagaac tgatgaattg aaggaataat ttatatacat tatagagttt 3120
285 tcttttttaa tggatatata ctgtattgta gtgtttaatc aaaataaaac tatttgacct 3180
286 tatggaggaa ggtcatgttt ttaccactaa aa 3212

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289 &lt;210&gt; SEQ ID NO: 4

290 &lt;211&gt; LENGTH: 69

291 &lt;212&gt; TYPE: DNA

292 &lt;213&gt; ORGANISM: Artificial Sequence

294 &lt;220&gt; FEATURE:

295 &lt;223&gt; OTHER INFORMATION: Description of Artificial Sequence: PCR Amplified

296 DNA

298 &lt;400&gt; SEQUENCE: 4

299 acagccaatc atgctaccta accaggcagg tcaagggtca ctcccagcca ctggaatgcc 60

300 tgtttactg 69

303 &lt;210&gt; SEQ ID NO: 5

304 &lt;211&gt; LENGTH: 23

305 &lt;212&gt; TYPE: DNA

306 &lt;213&gt; ORGANISM: Artificial Sequence

308 &lt;220&gt; FEATURE:

309 &lt;223&gt; OTHER INFORMATION: Description of Artificial Sequence: DNA Primer

311 &lt;400&gt; SEQUENCE: 5

312 acagccaatc atgctaccta acc 23

315 &lt;210&gt; SEQ ID NO: 6

**VERIFICATION SUMMARY**

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DATE: 07/12/2005

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Input Set : A:\US10509950 Sequence Listing.txt

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L:10 M:270 C: Current Application Number differs, Replaced Current Application Number

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date